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ABSTRACT

This paper estimates the expenditures, revenue, and related implications for Ontario's Colleges of Applied Arts and Technology (Canada), using a specific set of hypotheses and assumptions. The Ministry of Training, Colleges, and Universities estimates a demand for an additional 37,400 spaces (a 27% increase in full-time enrollment) by 2010. In recent years, the colleges have increased the system-wide enrollment and reduced their reliance on operating grants through increased operational efficiencies and increased tuition revenue. Today's colleges have limited ability to grow with only their existing revenue sources. Significant resources are required for capital expansion (one-time investments) and on-going operations (annual revenue). Inflation, together with increased demand for academic resources, will drive aggregate expenditures in excess of the incremental tuition revenue. Colleges will be required to invest in additional non-capital infrastructure and resources. The model assumes annual inflation of 2.1% over the 10-year period compounded annually. This report identified two actions that should be undertaken: (1) resolution of the public-policy issues relating to the general-purpose grant, other specific-purpose grants and tuition changes beyond those announced by the Ministry; and (2) examination of the impact of staffing needs for the colleges to meet the increased student enrollment. (JA)

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Future College Capacity Issues Resulting from the Double Cohort And Other Demographic Considerations

For

Administrative Services Coordinating Committee

Prepared by KPMG LLP

TC010349

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Association of Colleges of Applied Arts and Technology

Future College Capacity Issues Resulting from the Double Cohort and Other Demographic Considerations

November, 2000
Toronto Canada

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Executive Summary

Ontario's Colleges of Applied Arts and Technology (the Colleges) have contributed substantially to economic development in Ontario for over thirty years through their provision of accessible quality career education and training in both English and French. Today, the Colleges prepare job-ready graduates for Ontario's expanding and demanding labour market.

The Ministry of Training, Colleges and Universities (the Ministry) estimates a demand for an additional 37,400 spaces (a 27 percent increase in full-time enrolment) by 2010.

Meeting the Future Demand

To fully meet the educational needs of Ontarians, the Colleges will be required to increase their academic and physical resources. In recent years, the Colleges have increased the system-wide enrolment and reduced their reliance on operating grants[1] through increased operational efficiencies and increased tuition revenue. Today's Colleges have limited ability to grow their capacity with only their existing revenue sources. In addition, the Colleges have negligible net assets and incremental debt capacity. Significant resources are required for capital expansion (one-time investments) and on-going operations (annual revenue).

The Administrative Services Coordinating Committee (the Committee) of the Association of Colleges of Applied Arts and Technology engaged KPMG LLP to work with the Committee to develop this paper that estimates the expenditures, revenue and related implications for the Colleges using a specific set of hypotheses and assumptions.

Cautionary Note

Readers are cautioned that actual results achieved for the period covered will vary from the information presented and that the variations may be material. Readers are directed to the cautionary note on page 10 for further information.

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[1] *i.e., operating grants have decreased as a percentage of total revenue*

Capital Expansion

Using the Ministry-projected enrolment increases, current SuperBuild[2] approvals for the Colleges should enable the necessary space requirements for the next ten years. The model and its assumptions, adopted for this report, used system-wide data and did not include an assessment or determination of whether there may be local space issues during the next decade at specific institutions. As a result, certain additional capital projects may be required.

Given the current construction boom in many areas of Ontario, the Colleges may be challenged to develop the new spaces within the required timeframe and to manage the project costs. For example, in Toronto, the non-residential building construction price index increased 7.7%[3] between the second quarter of 1999 and 2000. Further, some colleges may have difficulty securing non-SuperBuild contributions or financing.

On-going Operations

The Ministry-projected expansion of demand is not sustainable solely from increased tuition revenue[4] from incremental enrolment. Inflation together with increased demand for academic resources will drive aggregate expenditures in excess of the incremental tuition revenue.

Though there may be economies of scale realized from increasing enrolment, the Colleges will be required to invest in additional non-capital infrastructure and resources (i.e., learning resources, instructional computers, etc.).

The model assumes:

- Annual inflation of 2.1% over the ten-year period compounded annually;
- All salaries and benefits expenditures will increase over the ten-year period based on annual inflation assumption;
- Technology-related expenditures will increase over the ten-year period based on annual inflation assumption;

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[2] *SuperBuild represents the largest investment ($742 million) in Ontario's colleges and universities in over thirty years.*

[3] *Statistics Canada, CANSIM, Matrices 9930-9931 and Catalogue 62-007-XPB*

[4] *Assuming tuition increases, net of the required contribution to student assistance, are limited to the two percent announced by the Ministry until the year ended March 31, 2005 with zero percent increase thereafter.*

- Administrative expenditures will vary directly with 20% of the enrolment increase;
- Support expenditures will vary directly with 50% of the enrolment increase;
- Academic expenditures will vary directly with the enrolment increase;
- All expenditures relating to specific-purpose grants will be contained within the available funding.

See Appendix for a detailed breakdown of assumptions.

Additional operating revenue is required to sustain both increased enrolment and increased physical capacity. The model estimates that by 2010, the annual incremental resource shortfall would amount to over $500 million to sustain the increased enrolment projected by the Ministry.

Figure 1 highlights three key components of the incremental revenue. These include:

- The impact of holding the general-purpose operating grant constant;
- The impact of lower than inflationary increases for announced tuition fees (i.e., the announced tuition fee increase of two percent[5] over the first five years of the projection and holding tuition fees constant thereafter); and,
- The impact of other factors.

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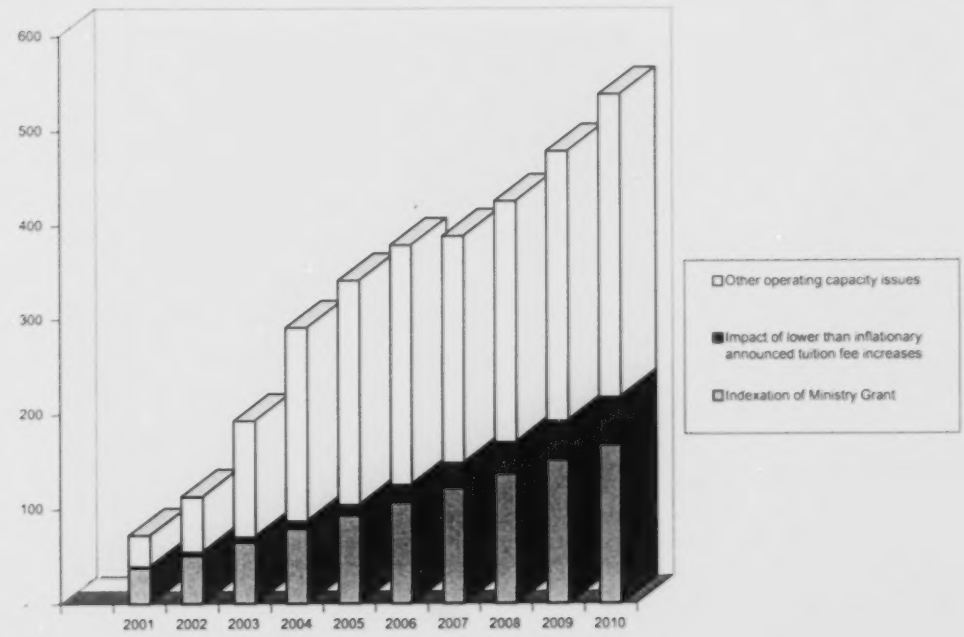
[5] *Colleges are required to direct thirty percent of any tuition fee increases into student assistance. As a result, the model estimates are based on an average increase of 1.4% over the first five years.*

Figure 1—Projected Annual Resource Shortfall
Assuming 2.1% Annual Inflation
For the ten years ending March 31, 2010
(in millions of dollars)
(unaudited)



The above estimates do not include:

- **The resolution of the deferred maintenance issues**.[*] In 1999, the Ministry estimated the order of magnitude of deferred maintenance to be $300 million. A portion of this has been addressed through the SuperBuild approvals. The Ministry has estimated that the Colleges[†] will have an estimated un-addressed deferred maintenance of approximately $317 million as at March 31, 2006 .

  Deferred maintenance issues will need to be resolved to ensure high-quality education at the Colleges.

- **Quality enhancement costs**. These costs include program quality support (i.e., faculty renewal, increased technical support staff, program and professional development); Learning

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[*] *As identified by the Colleges*

[†] *As identified in the presentation entitled, " Results of College Institutional Plans", submitted to the Ministry of Training Colleges and Universities, and Association of Colleges of Applied Arts and Technology of Ontario Working Group on College Capacity and Funding.*

Information Technology (i.e., one-time investment in 2000 for technology and annual instructional technology requirements thereafter); and, Colleges New Charter (i.e., research and consultation related to the new charter and implementation plans for applied degrees, degree completion, nursing entry to practice, and college/university articulation agreements).

- **Technological enhancements costs**. These costs include improving technology infrastructures (i.e., networks, hardware, software and related support) that support learning, e-business, administration and student services. As technology becomes a more important facet of learning and supporting the learning environment, access to up-to-date infrastructure will be required by instructors, students and administrators.

Closing the Incremental Revenue Gap

This report identified three areas of public-policy that could close the financial resource gap, which are outside of the report's terms of reference:

- Changes in the current levels of the general-purpose operating grant and other specific-purpose grants from the Ministry;
- Changes in the student tuition fees beyond those announced by the Ministry; and,
- Methods of financing infrastructure growth.

The above represent policy decisions for the Province.

Conclusion

The Colleges' projected estimated operating expenditures will increase dramatically over the ten years ending March 31, 2010. This will be as a result of:

- The expenditures to maintain the larger infrastructure resulting from the SuperBuild announcements; and,
- The Ministry-projected increase in enrolment requiring additional expenditures for academic-related and student service-related activities.

Furthermore, additional resources will be required to off-set the loss of purchasing power over the decade. Today, the Colleges are experiencing significant pressure from the current construction boom in Ontario (Current demand for construction/renovation has placed significant upward pressure on prices well in excess of general inflation) and labour markets (Competition for highly-skilled professionals has placed significant upward pressure on remuneration (e.g., technology, engineering, health-sciences, etc.)).

It is imperative that the following actions be undertaken:

- Resolution of the public-policy issues relating to the general-purpose grant, other specific-purpose grants and tuition changes beyond those announced by the Ministry; and,
- Studying the impact of staffing needs for the Colleges to meet the increased student enrolment.

The predicted growth cannot be sustained solely from increased tuition revenue from incremental enrolment. Continued erosion of the College's funding units will only exacerbate the growth issues and quality considerations.

Since the Ministry projections show sustainable growth through the double cohort period into the long-term, permanent solutions are required to solve permanent growth.

Context

The Administrative Services Coordinating Committee (the Committee) of the Association of Colleges of Applied Arts and Technology engaged KPMG LLP to work with the Committee to develop this paper that estimates the expenditures, revenue and related implications for the Colleges using a specific set of hypotheses and assumptions.

Purpose

The purpose of this report is pull together information available from the Ministry of Training, Colleges and Universities (the Ministry) and the Ontario's Colleges of Applied Arts and Technology (the Colleges) to estimate the system-wide resources required to meet the incremental enrolment. The resource estimates include both the one-time investments required to enable the growth and the annual incremental resources to support the expanded system.

It is recognized that the SuperBuild project approvals is one of the key steps for financing infrastructure growth.

Cautionary Note

Information contained within this report is for the internal use of the Association of Colleges of Applied Arts and Technology (ACAATO), the Colleges and the Ministry. The information should be solely used in their decision-making for the operationalization of the College System's capacity expansion to accommodate the expected increased enrolment demand.

Readers of the projected financial information contained in this report are cautioned that such information has been prepared using specific assumptions given the Colleges' judgment as to the most probable set of economic conditions together with the Ministry's hypothesis that enrolment will grow by 37,400 full-time equivalent students by 2010.

It must be recognized that the ability of the Colleges to provide access to the incremental enrolment is highly dependent on:

- Their ability to secure incremental resources for capital and operating purposes; and,
- The delivery location and program mix for the incremental enrolment.

Incremental resources for capital purposes can include, capital grants (federal or provincial), long-term debt (operating resources would be required to service debt), leasing (operating resources would be required to discharge lease obligations), fundraising, locally-generated funds

and private-public partnerships. Resources for operating purposes can include operating grants, internal efficiencies, tuition, net ancillary revenue and other funds (other funds are not sustainable in the long-term for providing adequate resources).

Actual incremental resources required will vary from the estimates included in this report. Readers are cautioned that the variance may be material.

November, 2000
Toronto, Canada

Association of Colleges
of Applied Arts and Technology

Over Thirty Years of Colleges

The Colleges have contributed substantially to economic development in Ontario for over thirty years through their provision of accessible quality career education and training in both English and French. Today, the Colleges prepare job-ready graduates for Ontario's expanding and demanding labour market.

Presently, there are 137,342 full-time[*] at 25 colleges that serve all regions of Ontario. The Ministry currently projects a significant increase in College enrolment over the next decade. This increased projected enrolment is driven by:

- Changes in Ontario's demographics—*increased population*;
- Economic needs for skilled employees—*increased participation rates*; and,
- Secondary education reform—*a one-time demand change*.

The Ministry's projections indicate that there will be demand for an additional 37,400 spaces by 2010. This represents a 27% increase in full-time enrolment, which will have a significant impact on the Colleges.

A sub-committee of registrars from the Colleges has determined that the Ministry's projection for the system, as a whole, is plausible based on current available data. It must be recognized that while the system enrolment may increase by 27%, it is highly unlikely that individual institutional growth would be uniform—variances in individual growth rates may be significant.

To fully meet the expected future needs of Ontarians, the Colleges will need to increase their capacity. The major capacity issues include:

- Academic resources (i.e., instructors, library, academic technology, equipment and other learning resources); and,
- Space (i.e., traditional classrooms, laboratories and other dedicated facilities).

The Colleges will be able to mitigate a portion of the capacity issues through distributed learning methods, increased academic resource leverage and increased space utilization—but a significant portion of the capacity issues will require additional resources.

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[*] *The 1999 full-time post-secondary enrolment excluding CEIC, and International Students from Ontario College Application Service* November 1 Survey of Colleges

Access to both one-time and on-going resources will be necessary if the Colleges are to continue to lead the way to provide high-quality programs to ready the workforce for emerging needs of Ontario's expanding economy.

College Capitalization

At present, the Colleges are Schedule III Crown Agencies. Schedule III agencies are operational agencies that:

- Are either funded, wholly or in part, by Ontario's Consolidated Revenue Fund or by money raised through fees;
- Are subject to the financial planning and reporting systems as determined by their responsible ministry;
- Are self-funded, non-commercial organizations;
- Adhere to the general management principles of the government, but can show why compliance with all government administrative directives is not appropriate;
- Manage their own administrative support; and,
- Do not appoint staff under the Public Service Act.

Such status restricts their activities, flexibility and responsiveness to react to dramatic changes.

Under the current funding arrangements, the overwhelming majority of colleges have unrestricted net assets under 10% of their annual revenue—many are less than 5%—some have deficits.

Further, the Colleges are restricted from disposing of certain educational assets without the consent of the Ontario Realty Corporation and other necessary Ministry approvals. As such, these assets cannot be pledged as security for long-term debt. The Colleges' ability to secure long-term financing is based on future projected cash flows from operating grants, tuition revenue and other ancillary revenue.

Given the limited unrestricted net assets together with limitations on long-term borrowing outlined above, the Colleges have limited ability to undertake significant expansion using their current resources and their debt capacity.

The Approach

For this report, it was decided to use consolidated information for the College System—not information on a college-by-college basis. It is recognized that the Colleges are not homogenous and that each faces its own unique challenges in terms of its share of the incremental enrolment, current space capacity and available academic resources. Accordingly, a straight-line extrapolation of this report to an individual college is not appropriate. Throughout the report, pressure points have been identified where the use of consolidated data may impact the estimation process.

A working model was developed to estimate resource requirements and to perform sensitivity analysis. The main sources of information included:

- Ministry-compiled Consolidated College Financial Information System (CFIS) data for the year ended March 31, 1998;
- Ministry-endorsed estimated enrolment projections for the academic years through to 2010;
- An ACAATO-compiled summary of the SuperBuild approvals; and,
- A combination of industry benchmarks, Ministry data and corroborating information from the Colleges relating to capital expenditures.

Financial Data

At the on-set of this report, the 1997/98 CFIS data had been fully analyzed and was determined to be a solid basis for projecting resource requirements going forward. In order to effectively use the data, CFIS data was updated for the 1998/99 grant revenue and tuition levels to determine the base for projections beyond March 31, 1999.

In addition, the CFIS data was readied for projection of operating resources through the following:

- All capital assets-related revenue (i.e., Ministry capital-related grants, other provincial capital-related grants, specific-purpose capital grants and amortization of deferred contributions for capital assets) and expenditures (i.e., amortization of capital assets (owned and under a capital lease) were isolated and separately analyzed; and,

- All amounts relating to donations[9] and prior year adjustments were removed.

Due to the endogenous relationship between revenue for the activities to support non-full-time post-secondary programs/services and the related expenditures, the following revenue and related expenditures were kept in the operating analysis:

- All non-capital asset-related expenditures;
- General-purpose operating grant;
- Amortization of deferred contributions for expenditures of future periods;
- All Ministry grants for a variety of training initiatives for youths, adults and industry together;
- All Federal government purchases of: training seats under the direct and in-direct purchase options; and, apprenticeship training;
- Investment income;
- All ancillary revenue; and,
- All contracted services revenue.

Tuition and incidental fees were also updated to the 1998/99 level for the 1998/99 fiscal year after being reduced by the proportion to be maintained for student assistance in accordance with the Ministry's guidelines. Thereafter, tuition increases where limited to those currently announced by the Province. Specifically, tuition increases, net of the required contribution to student assistance, are limited to the two percent announced by the Ministry until the year ended March 31, 2005 with zero percent increase thereafter.

The model assumes:

- Annual inflation of 2.1% over the ten-year period compounded annually;
- Ancillary revenue will vary directly the enrolment increase;
- Administrative expenditures will vary directly with 20% of the enrolment increase;
- Support expenditures will vary directly with 50% of the enrolment increase;
- Academic expenditures will vary directly with the enrolment increase; and,

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[9] *The public makes donations for non-operating purposes (e.g., capital expansion, scholarships and bursaries).*

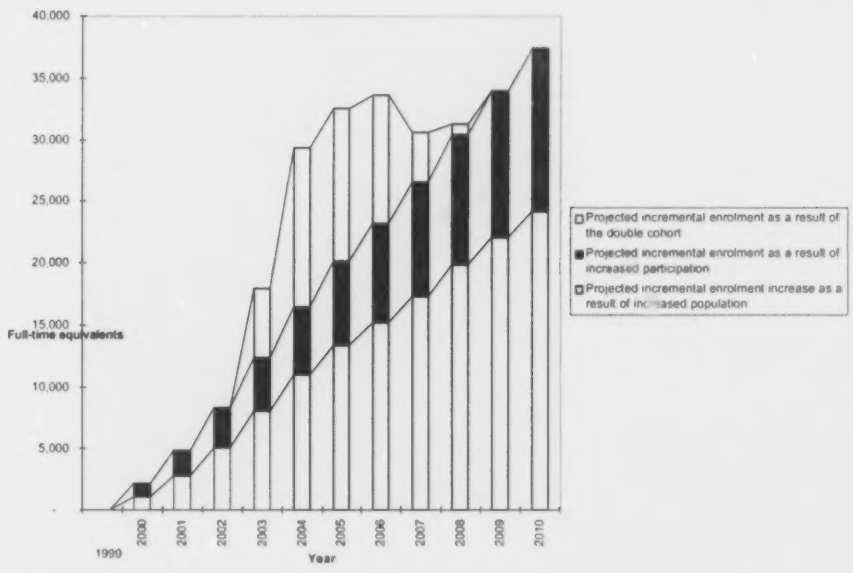
- All expenditures relating to specific-purpose grants will be contained within the available funding.

Enrolment Data

It must be recognized that student enrolment is the significant factor that impacts the resources required by the Colleges.

Over the next decade, the Ministry projects that College enrolment will increase by over 37,400 full-time students. The projections also capture the impact of Ontario's secondary education reform (i.e., changing from a five-year program to four-year program). The year that two groups of secondary students graduate at the same time is often referred to as the double cohort.

Figure 2—Projected Incremental Enrolment
For the ten years ending August 31, 2010
(unaudited)



Source: Ministry of Training, Colleges and Universities

Moderate case based on Ministry of Finance's 1991 census population projections

The College enrolment projections show continuous sustained growth over the next decade. Significant capacity issues will result from secondary educational reform commencing in 2003. As the "Double Cohort" students move through the College System, the total incremental enrolment will peak in 2006 and decline for two years until returning to the same levels and continuing to growth into the future.

The Colleges believe that the historic trends are conservative. Higher enrolment increases may result from:

- Increased profile of Colleges (MacLean's, Angus-Reid, The Ministry's Key Performance Indicator Survey results);
- Increased need for the fast-track re-training that is offered at the Colleges;
- The lower cost for students of College programs; and,
- Potential new post-secondary education models.

Estimated Resources Required

For Capital Expansion

SuperBuild

SuperBuild represents the largest capital investment in Ontario's colleges and universities in over thirty years. The Province is investing $891 million this year through SuperBuild with the stated goals of revitalizing Ontario's colleges and universities as well as improving the quality of education and to help prepare for an expanded student demand. Of the amount, $660 million is for new capital projects, $62.5 million for renewal of existing facilities and $19.5 million for previously approved projects. With private-sector and other contributions, it is expected that the total value of investment will increase to nearly $1.4 billion.

Resources have been made available to the Colleges during the second and third quarters of 2000. Specifically, the Province announced SuperBuild approvals for 29,167 spaces ($293 million) at individual colleges and 10,551 joint college/university spaces ($145 million) to close the one-time capital investment gap.

Under the terms of the SuperBuild approvals, funding or financing (ranges from 17.5% to 66%) from private and non-Ontario government sources must be secured for each of the projects. In addition, the Colleges are required to invest the received funds to maximize the value of the SuperBuild contribution until the funds are expended.

37,400 New Spaces Required

During the next decade, the Colleges capacity must increase by 37,400 new spaces. This can be accomplished through three options:

- Increased utilization of current classroom space;
- Renovation of current space; and,
- New construction.

Increasing the efficiency of space does not require any additional capital resources. Space efficiency can be realized through:

- Alternate modes of delivery;

- Increased course offerings during the spring and summer[10]; and,
- Increasing scheduling efficiency.

Given the Ministry has reviewed the individual submissions from the Colleges for SuperBuild projects and has approved their funding, this report has not assessed specific project costing. However, we note the following:

- Given the current construction boom in many areas of Ontario, some Colleges may be challenged to develop the new spaces within the required timeframe and to manage the project costs. For example, in Toronto, the non-residential building construction price index increased 7.7%[11] between the second quarter of 1999 and 2000. Upward pressure on available construction resources continues as a result a shortage of commercial rental space and the backlog resulting from the recently concluded concrete workers strike.
- Some colleges may have difficulty securing the non-SuperBuild contributions[12] or financing.

Given the SuperBuild approvals, the Colleges should be able to meet their space requirements for the next decade. It is has been specifically assumed that the Colleges will be able to increase their space efficiencies to accommodate 7,500 spaces. Figure 3 demonstrates the accommodation of enrolment from both space efficiency gains and SuperBuild accommodation.

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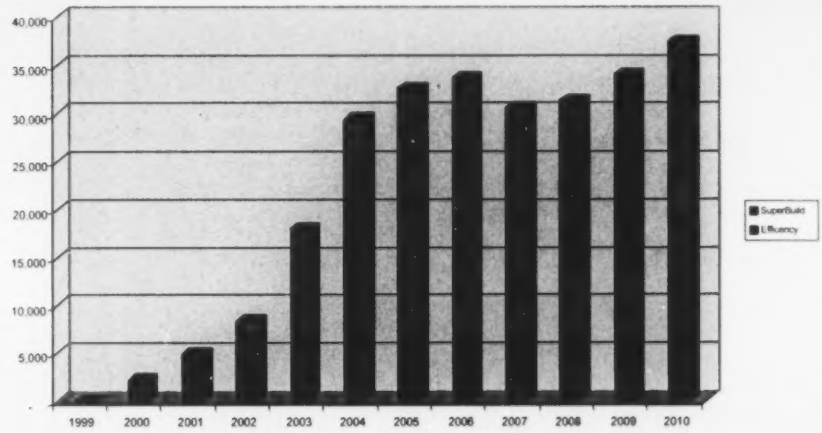
[10] *Course offerings during the spring and summer can only be accomplished if there is sufficient student demand for such offerings in quantities that are economically efficient for the offering college. Student demand for spring and summer offerings has been sparse in recent years.*

[11] *Statistics Canada, CANSIM, Matrices 9930-9931 and Catalogue 62-007-XPB*

[12] *It is only in recent years that Colleges have been able to undertake significant fund-raising activities. Since the Colleges and their foundations are relatively new to the world of fundraising, many do not have highly developed fund-raising databases. Today's market for fundraising is highly competitive and can be very challenging without a highly developed database and proven fund-raising track record. Some of the contributions that will be received may result in reduced discounts that would have otherwise been realized.*

Figure 3—Accommodation of Estimated Incremental Enrolment (unaudited)



Local Considerations

The operating environments for the Colleges vary considerably across the Province. There is a trade-off between providing local access and maintaining economies of scale. Certain areas, such as the Greater Toronto Area, are experiencing significant growth while other areas of are not. The student demand and other economic considerations are significantly impacting some of the smaller and northern colleges. This will continue to be a significant issue for the affected colleges. High-growth areas may not have adequate resources to expand to the meet the demand given the current capitalization and ability to raise debt.

Current system available capacity is not necessarily coterminous with the increased demand from new enrolment. It is recognized that increased costs of relocation to the available spaces may inhibit their ability to access the available capacity.

In addition, significant changes in program mixes have not been considered in this model. For example, a shift towards programs requiring specialized equipment and dedicated high-cost facilities has not been considered.

For On-going Operations

Increased enrolment represents both revenue opportunities and increased demand for monetary and non-monetary resources. For example, revenue opportunities include increased tuition[13]

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[13] *For the purposes of the model, tuition fees have been estimated based on the Ministry-announced guidelines for the projection period. Specifically, the five years ending March 31, 2005, it has been*

revenue and increased net revenue from ancillary operations (e.g., bookstores, parking, food services and others).

A model was developed to estimate the impact of the incremental enrolment over the next decade. To permit readers of this analysis to isolate the issues facing the Colleges, the following sub-sections will outline the implications for operating resources.

Hypotheses and Assumptions

The following is a summary of the significant hypotheses and assumptions used in the modeling for the estimation of the net operating resources required by the Colleges:

- Period of projection is for the ten years ending March 31, 2010;
- Projected incremental enrolment will be based on the Ministry's projections;
- The average funding unit weighting will remain constant[14] through to March 31, 2010;
- Inflation is assumed to be 2.1% per annum[15] for all operating revenue and operating expenditures over the period except for Ministry grants, tuition and investment income.
- All salaries and benefits expenditures will increase over the ten-year period based on annual inflation assumption;
- Technology-related expenditures will increase over the ten-year period based on annual inflation assumption;
- All Ministry non-capital grants and tuition levels are assumed to be fixed based on the 1998/99 levels[16].
- All tuition, incidental fees, grants in-lieu-of-taxes, ancillary revenue (except for day-care, student housing[17], conferences and seminars[18], and investments) are assumed to proportionately increase based on incremental enrolment.

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assumed that the annual increase of two percent over the base year. Thirty percent of the increase has been reserved for student assistance.

[14] *Current Ministry system-wide data indicates that the average funding unit weighting for Colleges has been constant over the past several years.*

[15] *Conference Board of Canada is projection inflation to be in 2.1% over the next year.*

[16] *Assumption has been used in order to permit users of this report to understand the net incremental resources required. Government policy can establish the proportion of funding from government versus tuition.*

Except as explained below, all CFIS expenditures are directly proportionate to incremental enrolment in the following areas:

- Academic;
- Ancillary operations (except for long-term debt interest[19]);
- Student services; and,
- Supplementary.

Administrative expenditures and support expenditures are assumed to increase directly proportionate to 20% and 50% of the increase in enrolment respectively.

The Impact

The impact on the Colleges will be dramatic over the next decade using the assumptions and hypothesis outlined above.

Figure 4 shows the incremental operating resources required to sustain current enrolment together with the incremental enrolment. Inflation, though assumed at 2.1% per annum over the decade, will significantly impact the Colleges.

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[17] *Since the modeling for capital resources did not include additional student residences or day-care facilities, revenue from these sources is assumed to not vary by enrolment.*

[18] *Given the increase need for capacity for full-time students, conferences and seminars may actually decrease.*

[19] *Any long-term debt interest relating to the expanded capacity is discussed in the capital resources.*

Figure 4—Projected Incremental Revenue and Expenditures
Assuming 2.1% Annual Inflation
For the ten years ending March 31, 2010
(In millions of dollars)
(unaudited)

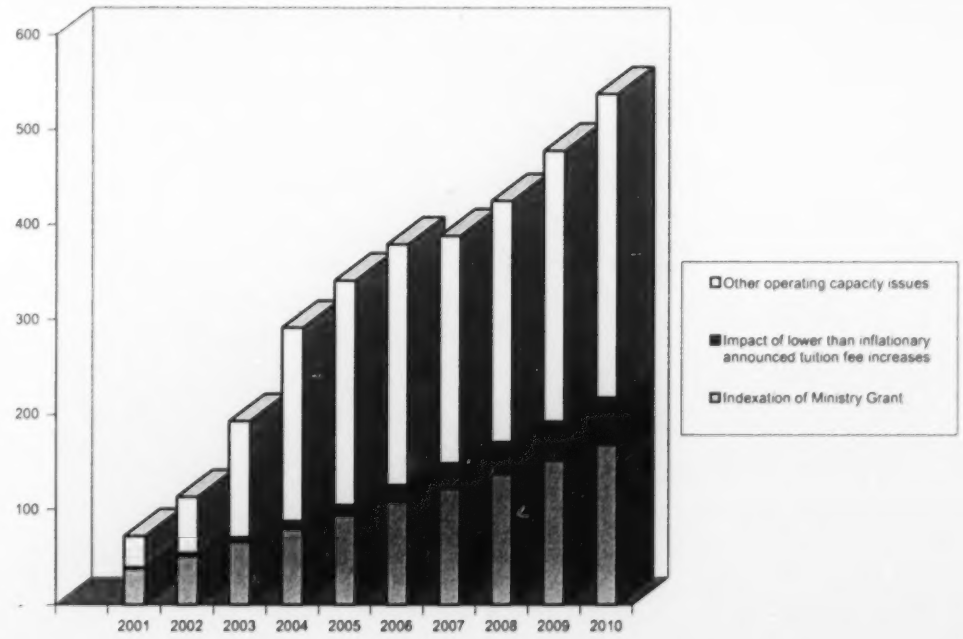
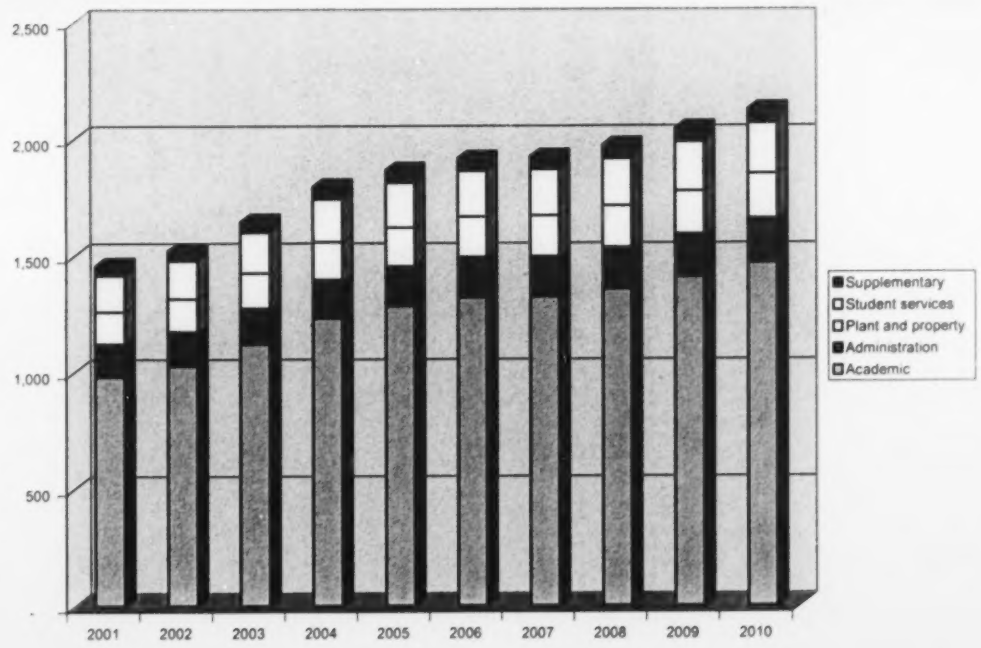


Figure 5 provides insight into the functional expenditure trend over the ten years ending March 31, 2010. Specifically, there is significant projected increase in academic expenditures[20] over the decade.

[20] *Academic expenditures are defined using the OCIS definitions.*

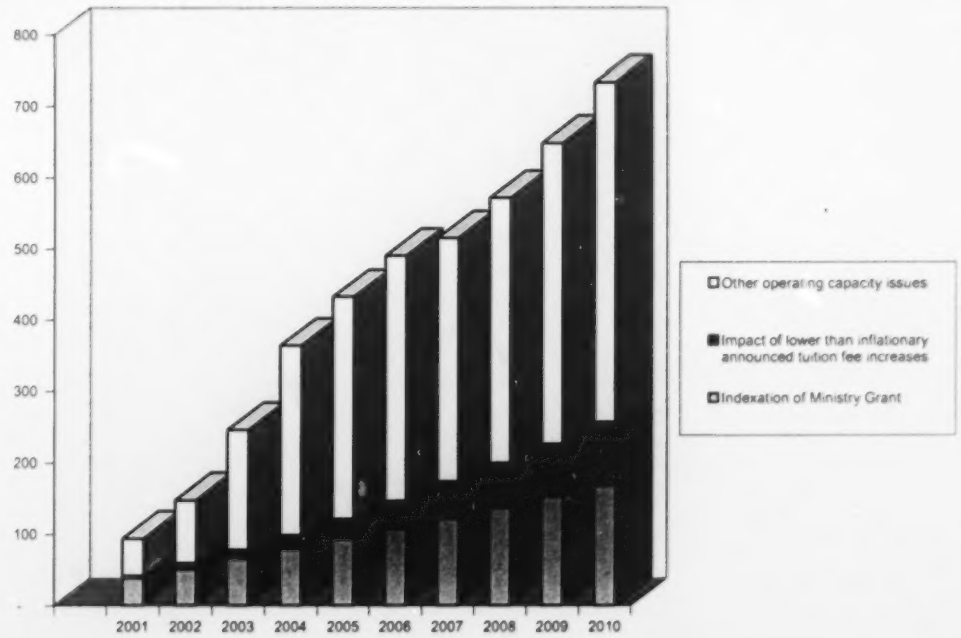
Figure 5—Projected Expenditures by Function, Excluding Ancillary and Fixed Assets
Assuming 2.1% Annual Inflation
For the ten years ending March 31, 2010
(in millions of dollars)
(unaudited)



Inflation Sensitivity

Increasing the inflation to 3.1% will increase annual incremental revenue requirement by approximately $125 million in 2010. Figure 6 also shows the proportion of the shortfall relating to the non-inflationary increases in Ministry grants and tuition fees.

Figure 6—Projected Annual Resource Shortfall
Assuming 3.1% Annual Inflation
For the ten years ending March 31, 2010
(in millions of dollars)
(unaudited)



Other Considerations

There are several considerations. They are as follows:

- Since 1989, the Colleges have served 33% more students. The funding unit[21] from the Province has reduced from $5,000 to under $3,000 during the following decade. Much efficiency has already been realized—some may be over realized. Current operating resources[22] at the Colleges are already reflected in the Student Satisfaction Surveys.

- Similar to many public-sector organizations that have accommodated significant funding level changes, many of the Colleges have identified deferred maintenance issues. In 1999, the Ministry estimated the order of magnitude of deferred maintenance to be $300 million. A portion of this has been addressed through the SuperBuild approvals. The Ministry has

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[21] *Prior to funding weighting.*

[22] *This would include support staff, purchased services, maintenance to name a few.*

estimated that the Colleges[23] will have an estimated un-addressed deferred maintenance of approximately $317 million as at March 31, 2006 .

Deferred maintenance issues will need to be resolved to ensure high-quality education at the Colleges.

- Recruitment of qualified staff is very competitive in certain sectors. For example, within high-technology sector, competition for qualified personnel is high. The Colleges will require over 1,000 new instructors to manage through the double cohort period. In addition, this does not factor the expected retirements of existing faculty.

- The Colleges are committed to undertaking certain quality enhancement costs. These costs include program quality support (i.e., faculty renewal, increased technical support staff, program and professional development); Learning Information Technology (i.e., one-time investment in 2000 for technology and annual instructional technology requirements thereafter); and, Colleges New Charter (i.e., research and consultation related to the new charter and implementation plans for applied degrees, degree completion, nursing entry to practice, and college/university articulation agreements).

- Technology investments (i.e., networks, hardware, software and related support) are becoming an increasingly important aspect for all organizations. This is also true for post-secondary institutions. The Colleges have traditionally lagged in their investments in technology, especially in the provision of technology for all instructors, computer-based training and increasing access to technology for students. Investments for learning, e-business, administration and student services will present significant commitments for the Colleges. Furthermore, as technology becomes a more important facet of learning, access to up-to-date infrastructure will be required by instructors, students and administration.

Conclusion

The Colleges' projected estimated operating expenditures will increase dramatically over the ten years ending March 31, 2010. This will be as a result of:

- The expenditures to maintain the larger infrastructure resulting from the SuperBuild announcements; and,

- The Ministry-projected increase in enrolment requiring additional expenditures for academic-related and student service-related activities.

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[23] *As identified in the presentation entitled, " Results of College Institutional Plans", submitted to the Ministry of Training Colleges and Universities, and Association of Colleges of Applied Arts and Technology of Ontario Working Group on College Capacity and Funding.*

Furthermore, additional resources will be required to off-set the loss of purchasing power over the decade. Today, the Colleges are experiencing significant pressure from the current construction boom in Ontario (Current demand for construction/renovation has placed significant upward pressure on prices well in excess of general inflation) and labour markets (Competition for highly-skilled professionals has placed significant upward pressure on remuneration (e.g., technology, engineering, health-sciences, etc.)).

It is imperative that the following actions be undertaken:

- Resolution of the public-policy issues relating to the general-purpose grant, other specific-purpose grants and tuition changes beyond those announced by the Ministry; and,
- Studying the impact of staffing needs for the Colleges to meet the increased student enrolment.

The predicted growth cannot be sustained solely from increased tuition revenue from incremental enrolment. Continued erosion of the College's funding units will only exacerbate the growth issues and quality considerations.

Since the Ministry projections show sustainable growth through the double cohort period into the long-term, permanent solutions are required to solve permanent growth.

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Appendix Assumptions

Table 1 Specific Assumptions by OCIS Function

Note 1 Where indicated by an asterisk mark, the expenditure/revenue base has been proportionately increased by 50% of the increase in the number of projected enrolment numbers

Note 2 Where indicated by an asterisk mark, the expenditure/revenue base has been proportionately increased by 20% of the increase in the number of projected enrolment numbers

Note 3 Where indicated by an asterisk mark, the expenditure/revenue base has been held constant

Note 4 Where indicated by an asterisk mark, the expenditure/revenue base has been proportionately increased by 100% of the increase in the number of projected enrolment numbers

Note 5 Where indicated by an asterisk mark, the expenditure/revenue base has been proportionately increased by inflation being assumed to be 2.1% compounded annually.

Function	Object	OCIS Description	Note Ref	1	2	3	4	5
Revenue	01	General purpose operating grant						
Revenue	02	MTCU capital-specific				*		
Revenue	03	Capital grant-other provincial				*		
Revenue	04	MTCU capital-facilities renew				*		
Revenue	05	At direct purchase grant						*
Revenue	06	At premise rental grant						*
Revenue	08	Indirect -CITC						*
Revenue	09	Indirect-third party						*
Revenue	10	Apprenticeship per diem grant						*
Revenue	11	Apprenticeship premise rental grant						*
Revenue	13	MTCU -job connect						*
Revenue	14	MTCU -other						*
Revenue	17	Capital grants-other federal				*		
Revenue	18	Grants-other provincial ministry and agency				*		
Revenue	19	Grants-federal government Department and agency						*
Revenue	22	MTCU-spec purpose - instructional equip						
Revenue	23	MTCU-spec purpose -Bibliocentre						
Revenue	24	MTCU-spec purpose -northern						
Revenue	25	MTCU-spec purpose -other						
Revenue	26	MTCU-spec purpose -French language services						
Revenue	27	MTCU-spec purpose-premise rentals						
Revenue	28	MTCU-spec purpose-term gratuity						
Revenue	29	MTCU-spec purpose-spec needs						
Revenue	30	MTCU prior yr. Operating adj. +				*		

Function	Object	OCIS Description	Note Ref	1	2	3	4	5
Revenue	31	MTCU prior yr. Operating adj. -				*		
Revenue	34	MTCU prior yr. Train adj. +				*		
Revenue	35	MTCU prior yr. Train adj. -				*		
Revenue	37	At prior yr. Grant adj. -				*		
Revenue	38	Apprenticeship prior yr. Grant adj. +				*		
Revenue	40	Student tuition -full-time post secondary					*	
Revenue	41	Student tuition - tuition short					*	
Revenue	42	Student tuition -Part-time full-time funded					*	
Revenue	43	Non-tuition related incidental fees					*	
Revenue	44	Student tuition -other					*	
Revenue	45	Municipal taxes					*	
Revenue	46	MTCU-literacy & bas skill						*
Revenue	47	MTCU - Ontario. Skills development off						*
Revenue	48	MTCU -Ontario skills						*
Revenue	49	Day-care fees						*
Revenue	50	Investment income						*
Revenue	51	Proceeds from sale of fix assets				*		*
Revenue	54	Donated building/land				*		*
Revenue	55	Donations -cash				*		*
Revenue	56	Donated services				*		*
Revenue	57	Donated equipment				*		*
Revenue	58	Rev transfer restricted funds						*
Revenue	65	Salaries course products/service						*
Revenue	70	Contract service -domestic						*
Revenue	71	Contract service -internal						*
Revenue	77	Ancillary income -bookstore					*	*
Revenue	78	Ancillary income -parking					*	*
Revenue	79	Ancillary income -food services					*	*
Revenue	80	Rental college facilities						*
Revenue	81	Ancillary income -athletic/fit centres					*	*
Revenue	82	Ancillary income-residences						*
Revenue	83	Ancillary income -conference/seminars centres						*
Revenue	84	Ancillary income -daycare operations						*
Revenue	85	Ancillary income -other					*	*
Revenue	86	Ancillary income -computer rev					*	*
Revenue	90	Miscellaneous income					*	*
Expenditures								
Academic	01	Full-time academic salaries					*	*
Academic	04	Coordinator allowances					*	*
Academic	05	Sessional teaching salaries					*	*
Academic	06	Admin. Salaries			*			*
Academic	07	Full-time support salaries		*			*	*
Academic	08	Part-time support salaries		*			*	*
Academic	10	Salaries -other					*	*
Academic	11	Partial load academic salaries					*	*
Academic	12	Part-time academic salaries					*	*
Academic	20	Bonus/overtime -academic					*	*
Academic	21	Bonus/overtime -support		*				*
Academic	23	Professional leave -academic					*	*
Academic	24	Professional leave -admin.			*			*
Academic	27	Termination gratuity -academic					*	*
Academic	28	Termination gratuity -admin.			*			*
Academic	29	Termination gratuity -support/other		*			*	*
Academic	30	Employee benefit-academic f/t					*	*
Academic	31	Employee benefit-admin.			*		*	*
Academic	32	Employee benefit-support/other		*			*	*
Academic	35	Employee benefit -academic part-time					*	*
Academic	36	Employee benefit -academic part-load					*	*
Academic	37	Employee benefit -academic sessional					*	*
Academic	40	Instructional supplies					*	*

Function	Object	OCIS Description	Note Ref	1	2	3	4	5
Academic	42	Field work					•	•
Academic	43	Memberships & dues					•	•
Academic	44	Staff employment					•	•
Academic	45	Professional development					•	•
Academic	46	Travel					•	•
Academic	47	Promotion/public relations					•	•
Academic	48	Maintenance instructional EDP other equip					•	•
Academic	51	Telecommunications					•	•
Academic	52	Other supplies					•	•
Academic	60	Professional fees					•	•
Academic	63	Contract -other service					•	•
Academic	64	Contract -teaching service					•	•
Academic	73	Depreciation expense				•		•
Academic	74	Rental -other furniture & equip					•	•
Academic	75	Purchased -other furniture & equip					•	•
Academic	87	Rental-instructional furniture & equip					•	•
Academic	88	Purchased -instructional furniture & equip					•	•
Academic	95	Long term debt interest						
Academic	98	Miscellaneous expense					•	•
Administration	01	Full-time academic salaries					•	•
Administration	06	Admin. Salaries			•			•
Administration	07	Full-time support salaries		•				•
Administration	08	Part-time support salaries		•				•
Administration	10	Salaries -other		•				•
Administration	11	Partial load academic salaries		•				•
Administration	12	Part-time academic salaries		•				•
Administration	21	Bonus/overtime -support		•				•
Administration	24	Professional leave -admin.		•				•
Administration	28	Termination gratuity -admin.			•			•
Administration	29	Termination gratuity -support/other		•				•
Administration	30	Employee benefit-academic f/t					•	•
Administration	31	Employee benefit-admin.			•			•
Administration	32	Employee benefit-support/other		•				•
Administration	33	Employee health tax (* 1998 on				•		•
Administration	35	Employee benefit -academic part-time					•	•
Administration	36	Employee benefit -academic part-load					•	•
Administration	43	Memberships & dues					•	•
Administration	44	Staff employment					•	•
Administration	45	Professional development					•	•
Administration	46	Travel					•	•
Administration	47	Promotion/public relations					•	•
Administration	48	Maintenance instructional EDP other equip					•	•
Administration	51	Telecommunications					•	•
Administration	52	Other supplies					•	•
Administration	57	Vehicle expense					•	•
Administration	58	Insurance					•	•
Administration	59	Audit fees			•			•
Administration	60	Professional fees			•			•
Administration	61	Contract -security service					•	•
Administration	63	Contract -other service					•	•
Administration	72	Interest expense/bank charges						
Administration	73	Depreciation expense				•		•
Administration	74	Rental -other furniture & equip			•			•
Administration	75	Purchased -other furniture & equip			•			•
Administration	94	Student assist French tuition					•	•
Administration	98	Miscellaneous expense					•	•
Plant & Property	06	Admin. salaries			•			•
Plant & Property	07	Full-time support salaries		•				•
Plant & Property	08	Part-time support salaries		•				•

Function	Object	OCIS Description	Note Ref	1	2	3	4	5
Plant & Property	10	Salaries -other						•
Plant & Property	21	Bonus/overtime -support		•				•
Plant & Property	29	Termination gratuity -support/other		•				•
Plant & Property	31	Employee benefit-admin.			•			•
Plant & Property	32	Employee benefit-support/other		•				•
Plant & Property	33	Employee health tax (* 1998 only)				•		•
Plant & Property	43	Memberships & dues		•				•
Plant & Property	44	Staff employment		•				•
Plant & Property	45	Professional development		•				•
Plant & Property	46	Travel		•				•
Plant & Property	48	Maintenance instructional EDP other equip					•	•
Plant & Property	51	Telecommunications					•	•
Plant & Property	52	Other supplies					•	•
Plant & Property	54	Maintenance -building					•	•
Plant & Property	55	Maintenance -building equipment					•	•
Plant & Property	56	Maintenance -grounds					•	•
Plant & Property	57	Vehicle expense					•	•
Plant & Property	60	Professional fees						•
Plant & Property	61	Contract -security service			•			•
Plant & Property	62	Contract -cleaning service					•	•
Plant & Property	63	Contract -other service					•	•
Plant & Property	65	Electricity					•	•
Plant & Property	66	Fossil fuels					•	•
Plant & Property	67	Water					•	•
Plant & Property	68	Refuse removal					•	•
Plant & Property	69	Taxes -prop/per capita					•	•
Plant & Property	71	Municipal tax rent premise						•
Plant & Property	73	Depreciation expense				•		•
Plant & Property	74	Rental -other furniture & equip						•
Plant & Property	75	Purchased -other furniture & equip						•
Plant & Property	76	Approved premise rental						•
Plant & Property	78	Other premise rental						•
Plant & Property	98	Miscellaneous expense						•
Fixed Assets	73	Depreciation expense				•		•
Fixed Assets	75	Purchased -other furniture & equip				•		•
Fixed Assets	81	Building & site improvement				•		•
Fixed Assets	82	Leasehold improvements				•		•
Fixed Assets	84	Building construction				•		•
Fixed Assets	88	Purchased -instructional furniture & equip				•		•
Fixed Assets	95	Long term debt interest						•
Fixed Assets	98	Miscellaneous expense				•		•
Ancillary Operations	01	Full-time academic salaries					•	•
Ancillary Operations	06	Admin. Salaries			•			•
Ancillary Operations	07	Full-time support salaries		•				•
Ancillary Operations	08	Part-time support salaries		•				•
Ancillary Operations	10	Salaries -other						•
Ancillary Operations	11	Partial load academic salaries					•	•
Ancillary Operations	12	Part-time academic salaries					•	•
Ancillary Operations	20	Bonus/overtime -academic					•	•
Ancillary Operations	21	Bonus/overtime -support		•				•
Ancillary Operations	28	Termination gratuity -admin.			•			•
Ancillary Operations	30	Employee benefit-academic f/t					•	•
Ancillary Operations	31	Employee benefit-admin.			•			•
Ancillary Operations	32	Employee benefit-support/other		•				•
Ancillary Operations	35	Employee benefit -academic part-time					•	•
Ancillary Operations	36	Employee benefit -academic part-load					•	•
Ancillary Operations	43	Memberships & dues					•	•
Ancillary Operations	44	Staff employment					•	•
Ancillary Operations	45	Professional development					•	•

Function	Object	OCIS Description	Note Ref	1	2	3	4	5
Ancillary Operations	46	Travel					•	•
Ancillary Operations	47	Promotion/public relations					•	•
Ancillary Operations	48	Maintenance instructional EDP other equip					•	•
Ancillary Operations	51	Telecommunications					•	•
Ancillary Operations	52	Other supplies					•	•
Ancillary Operations	54	Maintenance -building					•	•
Ancillary Operations	55	Maintenance -building equipment					•	•
Ancillary Operations	56	Maintenance -grounds					•	•
Ancillary Operations	57	Vehicle expense					•	•
Ancillary Operations	58	Insurance			•			•
Ancillary Operations	59	Audit fees						•
Ancillary Operations	60	Professional fees						•
Ancillary Operations	61	Contract -security service			•			•
Ancillary Operations	62	Contract -cleaning service			•			•
Ancillary Operations	63	Contract -other service			•			•
Ancillary Operations	65	Electricity					•	•
Ancillary Operations	66	Fossil fuels					•	•
Ancillary Operations	67	Water					•	•
Ancillary Operations	68	Refuse removal					•	•
Ancillary Operations	69	Taxes -prop/per capita					•	•
Ancillary Operations	71	Municipal tax rent premise						•
Ancillary Operations	72	Interest expense/bank charges						•
Ancillary Operations	73	Depreciation expense				•		•
Ancillary Operations	74	Rental -other furniture & equip						•
Ancillary Operations	75	Purchased -other furniture & equip						•
Ancillary Operations	76	Approved premise rental						•
Ancillary Operations	78	Other premise rental						•
Ancillary Operations	81	Building & site improvement						•
Ancillary Operations	87	Rental-instructional furniture & equip						•
Ancillary Operations	88	Purchased -instructional furniture & equip						•
Ancillary Operations	90	Cost goods sold ancillary operations					•	•
Ancillary Operations	93	Scholarships burs awards					•	•
Ancillary Operations	94	Student assist French tuition					•	•
Ancillary Operations	95	Long term debt interest						•
Ancillary Operations	98	Miscellaneous expense					•	•
Student Services	01	Full-time academic salaries					•	•
Student Services	05	Sessional teaching salaries					•	•
Student Services	06	Admin. Salaries			•			•
Student Services	07	Full-time support salaries		•				•
Student Services	08	Part-time support salaries		•				•
Student Services	10	Salaries -other					•	•
Student Services	11	Partial load academic salaries					•	•
Student Services	12	Part-time academic salaries					•	•
Student Services	20	Bonus/overtime -academic					•	•
Student Services	21	Bonus/overtime -support		•				•
Student Services	23	Professional leave -academic					•	•
Student Services	27	Termination gratuity -academic					•	•
Student Services	28	Termination gratuity -admin.			•			•
Student Services	29	Termination gratuity -support/other		•				•
Student Services	30	Employee benefit-academic f/t					•	•
Student Services	31	Employee benefit-admin.						•
Student Services	32	Employee benefit-support/other		•				•
Student Services	35	Employee benefit -academic part-time					•	•
Student Services	36	Employee benefit -academic part-load					•	•
Student Services	37	Employee benefit -academic sessional					•	•
Student Services	40	Instructional supplies					•	•
Student Services	43	Memberships & dues					•	•
Student Services	44	Staff employment					•	•
Student Services	45	Professional development					•	•
Student Services	46	Travel					•	•

Function	Object	OCIS Description	Note Ref	1	2	3	4	5
Student Services	47	Promotion/public relations					•	•
Student Services	48	Maintenance instructional EDP other equip						•
Student Services	51	Telecommunications					•	•
Student Services	52	Other supplies					•	•
Student Services	60	Professional fees						•
Student Services	63	Contract -other service					•	•
Student Services	73	Depreciation expense				•		•
Student Services	74	Rental -other furniture & equip					•	•
Student Services	75	Purchased -other furniture & equip					•	•
Student Services	87	Rental-instructional furniture & equip					•	•
Student Services	88	Purchased -instructional furniture & equip					•	•
Student Services	93	Scholarships burs awards					•	•
Student Services	94	Student assist French tuition					•	•
Student Services	98	Miscellaneous expense					•	•
Supplementary	01	Full-time academic salaries					•	•
Supplementary	05	Sessional teaching salaries					•	•
Supplementary	06	Admin. Salaries			•			•
Supplementary	07	Full-time support salaries		•				•
Supplementary	08	Part-time support salaries		•				•
Supplementary	10	Salaries -other					•	•
Supplementary	11	Partial load academic salaries					•	•
Supplementary	12	Part-time academic salaries					•	•
Supplementary	15	Participant allow/benefits					•	•
Supplementary	16	Spec support allow		•			•	•
Supplementary	27	Termination gratuity -academic						•
Supplementary	30	Employee benefit-academic f/t					•	•
Supplementary	31	Employee benefit-admin.			•			•
Supplementary	32	Employee benefit-support/other		•				•
Supplementary	35	Employee benefit -academic part-time					•	•
Supplementary	36	Employee benefit -academic part-load					•	•
Supplementary	37	Employee benefit -academic sessional					•	•
Supplementary	40	Instructional supplies					•	•
Supplementary	45	Professional development					•	•
Supplementary	46	Travel					•	•
Supplementary	47	Promotion/public relations					•	•
Supplementary	48	Maintenance instructional EDP other equip					•	•
Supplementary	51	Telecommunications					•	•
Supplementary	52	Other supplies					•	•
Supplementary	59	Audit fees						•
Supplementary	63	Contract -other service					•	•
Supplementary	69	Taxes -prop/per capita					•	•
Supplementary	74	Rental -other furniture & equip					•	•
Supplementary	76	Approved premise rental					•	•
Supplementary	78	Other premise rental					•	•
Supplementary	82	Leasehold improvements						•
Supplementary	98	Miscellaneous expense					•	•